

SBS is proud to offer new technological breakthroughs that efficiently allow the infusion of several EPA and FDA compliant antimicrobial ingredients into proprietary SBS Nano Ceramic coating products.

It was recognized that the growing resistance to antibiotics has been observed in many microbes causing a serious concern of modern medicine. In fact, the emerging resistance of bacteria to disinfectants is problematic and an ever-growing threat. Additionally, the concept of biocorrosion, biofouling and biodegradation are a major problem in industry.

The incorporation of antimicrobial properties into these unique coatings successfully protects a multitude of surfaces from a wide variety of pathogens, virus, bacteria, mold, algae and other microorganisms from colonizing on those coated surfaces, including food contact surfaces. †

The uniqueness of these proprietary SBS antimicrobial coatings can be seen in their ability to:

- withstand extremely harsh conditions.
- withstand hot/cold temperatures.
- withstand extreme UV.
- demonstrate excellent chemical resistance.
- be able to create a durable non-slip surface.
- also be able to create a non-stick surface.
- be FDA compliant for food contact.
- create long-term efficacy for the life of the coating (just keeps on working.)
- covalently bond to almost any substrate surface.

Unlike other coatings that simply adhere to the substrate with an ineffective subordinate physical bond, the SBS coatings become an integral part of the substrate (when applied correctly) via a superior covalent bond. A covalent bond (molecular bond) is a

The manufacturer is not responsible for the use and application of this material. At the time of this publication all information contained within was determined to be valid and true. It is up to the end user to determine the suitability of this product for their own application. No warranty is written or implied regarding application and use of these products.

SBS Antimicrobial Coatings *continued*

chemical bond that involves the sharing of electron pairs between atoms of both the substrate and the coating. This method of joining different materials results in a very tenacious bond – unlike paints and other covering materials.

†Notes:

- SBS antimicrobial coatings do not contain any heavy metals.
- SBS antimicrobial coating ingredients do not leach out of the coating.
- The SBS antimicrobial agents do not promote development of "Product Resistant Microorganisms", making them very safe to use around food preparation, food packaging areas and equipment, within medical facilities, hotels, restaurants, public spaces, public transportation, cruise lines and other marine vessels, aircraft interiors, building and transportation, air ventilation system filters and ductwork, clothing and other fabrics and much, much more.
- The SBS proprietary Nano Ceramic antimicrobial coatings range from optically clear to a variety of colors and primary functionality – from application to walls, floors, ceilings, counters, door handles, medical and other equipment, bathroom enclosures, food trays, windows, mirrors and many other high-touch areas. (Contact SBS for a listing and data sheets.)
- The SBS proprietary antimicrobial coatings integrate and infuse EPA approved antimicrobial ingredients in our FDA compliant durable unique coating products – providing an indomitable combination that can help protect most surfaces from microbial attack for many years.

* reference literature is available upon request from bonified requestors, in combination with an SBS-NDA agreement.

The manufacturer is not responsible for the use and application of this material. At the time of this publication all information contained within was determined to be valid and true. It is up to the end user to determine the suitability of this product for their own application. No warranty is written or implied regarding application and use of these products.

Literature* shows efficacy of the SBS antimicrobial agent against a range of microbes

- Anabaena cylindrica
- Chlorella
- Chlorophyta (green)
- Chrysophyta (brown)
- Oscillatoria borneti
- Pleurococcus
- Protococcus
- Scenedesmus quadricauda
- Selenastrum gracile
- Acinetobacter calcoaceticus
- Aeromonas hydrophilia
- Bacillus cereus
- Bacillus subtilis
- Bacillus typhimurium
- Citrobacter diversus
- Clostridium perfringens
- Corynebacterium bovis
- Corynebacterium diphtheriae
- Cutibacterium acnes
- Enterobacter aerogenes
- Enterobacter agglomerans
- Enterobacter cloacae
- Enterococcus
- Enterococcus faecalis
- Escherichia coli
- Klebsiella pneumoniae
- Klebsiella terrigena
- Mycobacterium tuberculosis
- Proteus mirabilis
- Proteus vulgaris
- Pseudomonas aeruginosa
- Pseudomonas cepacia
- Salmonella enterica
- Salmonella typhi
- Salmonella typhimurium
- Serratia liquefaciens
- Serratia marcescens
- Stachybotrys chartarum
- Staphylococcus aureus
- Staphylococcus epidermidis
- Streptococcus faecalis
- Streptococcus pyrogenes
- Vancomycin-resistant enterococci
- Alternaria alternata
- Aspergillus flavus
- Aspergillus fumigatus
- Aspergillus Niger
- Bipolaris australiensis
- Candida albicans
- Candida parapsilosis
- Cephalodascus fragans
- Cladosporium herbarum
- Clonostachys rosea
- Cryptococcus humicola
- Epidermophyton floccosum
- Fusarium nigrum
- Fusarium solani
- Geotrichum candidum
- Gliocladium roseum
- Gliomastix cerealis
- Itternaris species
- Mariannaea elegans
- Microsporum audouinii
- Monilia grisea
- Oospora lactis sp
- Oospora lactis
- Penicillium albicans
- Penicillium chrysogenum
- Penicillium citrinum
- Penicillium notatum
- Penicillium notatum
- Penicillium variablei
- Stachybotrys atra
- Saccharomyces cerevisiae
- Trichoderma flavus
- Trichosporon mucoides
- Trichophyton interdigitale
- Trichophyton mentagrophytes
- Trichophyton mentagrophytes